



an internal volume and outer surfaces of the sidewalls being substantially tangent to the outer surfaces of the cylindrical regions.

The claim language specifically defines the chamber body by describing its internal volume as two cylindrical regions and a region formed by two side walls that are substantially tangent to the cylindrical regions. The exact language is, "a chamber body having an internal volume defined by first and second substantially cylindrical regions and by side walls extending substantially tangent between the first and second substantially cylindrical regions." Only an interior surface of the sidewalls can be used to define an internal volume. Examples of substantially tangent sidewalls are shown in Figures 6B to 6C. The sidewalls 204C in Figures 6B and 6C are about tangent to the cylindrical regions formed by the substrate support 216 and the exhaust region above the gas outlet 208. Applicant respectfully requests reversal of the rejection.

**II. THE EXAMINER ERRED IN REJECTING CLAIM 1 UNDER 35 U.S.C. §102(B) AS BEING UNPATENTABLE OVER *TEPMAN, ET AL.* BECAUSE THE CLAIMS DEFINE AN INTERIOR VOLUME NOT TAUGHT OR SUGGESTED BY THE REFERENCE.**

The Examiner asserts that the claimed apparatus does not define structurally over *Tepman* because the top view of Figure 1 of *Tepman* shows inner sidewalls 20 that are substantially tangent to the two cylindrical regions.

*Tepman* teaches a chamber body defining two cylindrical regions connected by an exhaust orifice 22 in a base 20. Contrary to the assertion by the Examiner, Figure 1 of *Tepman* does not show or suggest that the inner surfaces of the exhaust orifice 22 in the base 20 are substantially tangent to the cylindrical regions. Applicant respectfully requests reversal of the rejection.

**III. THE EXAMINER ERRED IN REJECTING CLAIMS 2-4 UNDER 35 U.S.C. §103(A) AS BEING UNPATENTABLE OVER *TEPMAN, ET AL.* IN VIEW OF *BENJAMIN, ET AL.* BECAUSE THE REFERENCES DO NOT TEACH OR SUGGEST THE INTERNAL VOLUME RECITED IN THE CLAIMS.**

The Examiner asserts that the combination of *Benjamin* and *Tepman* shows the features of claims 2-4 because it is obvious to substitute one conventional plasma generating arrangement for another.

Contrary to the assertion by the Examiner, the combination of *Benjamin* and *Tepman* does not show or suggest that the internal volume defined by substantially tangent sidewalls as recited in base claim 1. Applicant respectfully requests reversal of the rejection.

**IV. THE EXAMINER ERRED IN REJECTING CLAIMS 11, 13-15, 21, AND 24-25 UNDER 35 U.S.C. §103(A) AS BEING UNPATENTABLE OVER *TEPMAN, ET AL.* IN VIEW OF *SHAN, ET AL.* BECAUSE *TEPMAN, ET AL.* DOES NOT TEACH OR SUGGEST A LINER IN AN INTERNAL VOLUME DEFINED BY THE STRAIGHT AND SUBSTANTIALLY TANGENT SIDE WALLS.**

The Examiner indicates that it would be obvious to provide liners to both the first and second cylindrical regions of *Tepman* as taught by *Shan*.

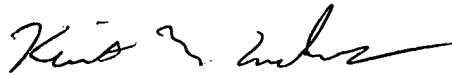
Contrary to the assertion by the Examiner, the combination of *Shan* and *Tepman* does not show or suggest that the internal volume defined by substantially tangent sidewalls as recited in base claims 11 and 21.

Futhermore, *Tepman* teaches away from the use of liners. *Tepman* teaches the desirability of interchanging the entire processing chamber (column 13, line 7 to column 14, line 22) including a replaceable base 20 that negates the need for a liner. Hence, the *Tepman* and *Shan* references alone or in combination, do not teach, show, or suggest the subject matter of claim 11, 13-15, 21, and 24-25. Applicants respectfully request reversal of the rejection.

### Conclusion

The specification adequately defines substantially tangent by showing several embodiments. *Tepman, et al.*, *Shan, et al.*, and *Benjamin, et al.*, alone or in combination, do not teach, show, or suggest an internal volume defined by first and second substantially cylindrical regions and by side walls substantially tangent to the first and second substantially cylindrical regions. Therefore, the rejections made by the Examiner should be reversed. Thus, Applicants respectfully request reversal of the rejection and allowance of claims 1-4, 11, 13-15, 21, and 24-25.

Respectfully submitted,



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